

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number  
**WO 2005/031346 A3**

(51) International Patent Classification<sup>7</sup>: **G01N 33/74**,  
33/68

(21) International Application Number:  
PCT/EP2004/010384

(22) International Filing Date:  
16 September 2004 (16.09.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
03021897.8 27 September 2003 (27.09.2003) EP

(71) Applicant (for all designated States except US): **BAYER  
HEALTHCARE AG** [DE/DE]; 51368 Leverkusen (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **GOLZ, Stefan**  
[DE/DE]; Bückmannsmühle 46, 45326 Essen (DE).  
**BRÜGGEMEIER, Ulf** [DE/DE]; Leysiefen 20, 42799  
Leichlingen (DE). **GEERTS, Andreas** [DE/DE]; Schuck-  
ertstr. 29, 42113 Wuppertal (DE).

(74) Common Representative: **BAYER HEALTHCARE**  
**AG**; Law and Patents, Patents and Licensing, 51368  
Leverkusen (DE).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

(88) Date of publication of the international search report:  
25 August 2005

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: **DIAGNOSTICS AND THERAPEUTICS FOR DISEASES ASSOCIATED WITH G-PROTEIN COUPLED RECEPTOR ADIPOR1 (ADIPOR1)**

(57) Abstract: The invention provides a human AdipoR1 which is associated with the cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer e.g. stomach, rectum, prostate tumor hematological diseases e.g. liver cirrhosis, inflammation e.g. lung CoPD, respiratory diseases, neurological diseases and urological diseases e.g. prostate BPH. The invention also provides assays for the identification of compounds useful in the treatment or prevention of cardiovascular diseases, dermatological diseases, gastroenterological diseases, cancer, hematological diseases, inflammation, respiratory diseases, neurological diseases and urological diseases. The invention also features compounds which bind to and/or activate or inhibit the activity of AdipoR1 as well as pharmaceutical compositions comprising such compounds.



**WO 2005/031346 A3**